

REMARKS

Applicant acknowledges receipt of the Office action dated August 19, 2009. Claims 1-20 were pending in the application and were examined. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Rowell* (WO 01/20718). This rejection is respectfully traversed.

Independent claims 1, 10, and 19 have been amended to clarify that the controllable switch is between a first edge of the first radiating element and a first edge of the second radiating element. These independent claims 1, 10, and 19 have also been amended to clarify that the filter is arranged (claims 1 and 10) or coupled (claim 19) between a second edge of the second radiating element and the control voltage input. These features are not disclosed, taught, or suggested by *Rowell*, and accordingly, *Rowell* does not anticipate or render obvious claims 1-20.

By way of example, FIG. 7 (reproduced below) of the instant application illustrates an exemplary embodiment having a switch 30 between a first edge of the first radiating element 10 and a first edge of the second radiating element 20. Also shown in FIG. 7 is a filter 40' arranged or coupled between a second edge of the second radiating element 20 and the control voltage input.

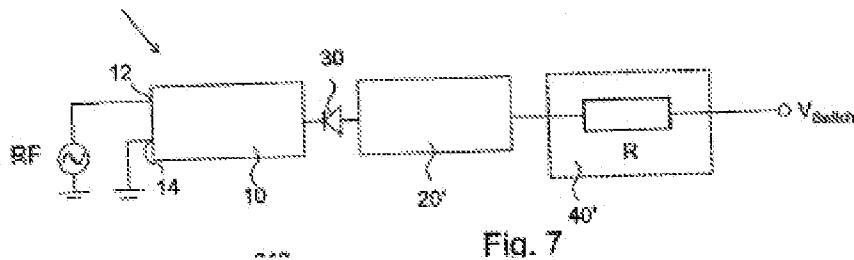


Fig. 7

In contrast to what is claimed in amended independent claims 1, 10, and 19, *Rowell* does not disclose a filter arranged or coupled between an edge of a radiating element and a control voltage input. Instead, *Rowell* FIG. 5 (reproduced below) clearly illustrates that the filter (identified by the Examiner as components 503, 504) is spatially below the entire radiating elements 421 and 422. Because the filter components 503,

504, are spaced beneath the radiating elements 421, 422, the filter components 503, 504 are not arranged between any edge of the radiating element 421 or 422 and the control signal.

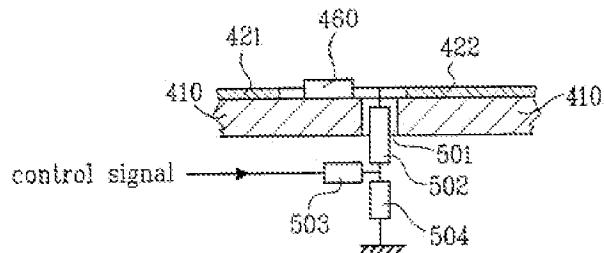


FIG.5

More specifically, *Rowell* discloses an controllable antenna having a control signal filtered using an LC network. *Rowell*'s antenna 400 includes a first radiating element 421, a second radiating element 422, and a switching element 460 arranged between the radiating elements 421, 422. See *Rowell*, page 9, lines 6-10. A switching element 460 is connected between the radiating elements 421, 422. See *Rowell*, page 9, lines 13-14. The switch 460 "is connected to a control signal via a resistor 503 and a LC network comprising an inductive element 502 and a capacitive element 504" and the inductive element 502 is arranged to eliminate feedback of radiofrequency signals. *Rowell*, page 9, lines 15-16. But as noted above, *Rowell*'s inductive element 502, resistor 503, or capacitive element 504 are spaced apart below (and not between) the edges of the radiating elements 421, 422.

Claims 2-9, 11-18, and 20 depend from an independent claim 1, 10, or 19 and are thus allowable for at least the same reasons given above in connection with the independent claim from which they depend. Accordingly, reconsideration and withdrawal of the rejections of dependent claims 2-9, 11-18, and 20 is respectfully requested.

In addition, dependent claims 2-9, 11-18, and 20 are believed to be further patentably distinguishable because *Rowell* does not disclose, teach, or suggest the additional features required by claims 2-9, 11-18, and 20 in combination with the other features recited in the independent claims from which they depend.

For example, Applicant submits that *Rowell* fails to disclose, teach, or suggest an antenna device in which the switch is a diode and the filter is electrically connected

directly to only the second radiating element and the control voltage input, thereby allowing the state of the diode to be controlled by using the electrical current running through the second radiating element (as recited in claims 8 and 18). Instead, *Rowell's* FIG. 5 illustrates *Rowell's* components 503, 504, 505 (which the examiner identified 503, 504 as a filter) as being electrically connected to ground, to the switch 460, to the control signal, and to the second radiating element 422. Accordingly, *Rowell's* filter is not electrically connected directly to only the control signal and radiating element 422. Thus, Applicant respectfully submits that *Rowell's* switch 460 shown in FIG. 5 would not be controlled using the current running through the radiating element 422.

As another example, *Rowell* fails to disclose, teach, or suggest an antenna device in which a filter is substantially coplanar with the second edge of the second radiating element (as recited in claim 12). Instead, *Rowell* FIG. 5 (reproduced above) clearly illustrates that the filter (identified by the Examiner as components 503, 504) are being non-coplanar with and spatially below the entire radiating elements 421 and 422.

Further, *Rowell* also does not disclose, teach, or suggest an antenna device "wherein the first radiating element comprises a generally planar rectangular element having a pair of opposing short edges and a pair of opposing long edges, wherein the first edge is one of the opposing short edges, and wherein the feeding portion and grounding portion are arranged at the other one of the opposing short edges" (as recited in claim 14). In contrast, *Rowell's* FIG. 4 (reproduced below) clearly illustrates feeding portion 440 and grounding portion 450 are arranged at one of the long edges of the rectangular radiating element 421.

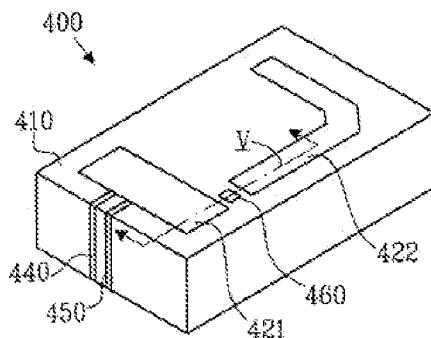


FIG.4

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 726-7502.

Applicant believes that the correct fee has been included in connection with this filing. If, however, Applicant owes any additional fee(s), the Commissioner is hereby authorized to charge the fee(s) to Deposit Account No. 08-0750. In addition, if there is ever any other fee deficiency or overpayment under 37 C.F.R. §1.16 or 1.17 in connection with this patent application, the Commissioner is hereby authorized to charge such deficiency or overpayment to Deposit Account No. 08-0750.

Respectfully submitted,

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